

performed using Monte Carlo technique. **RESULTS:** Annual patient costs of MMF were: \$7,746.75, \$7,993.03, \$7,694.19 and \$7,939.14 USD. For MPS were: \$7,673.35, \$7,989.92, \$7,605.80 and \$7,920.64 USD with an incremental efficacy of 0.07 less graft rejection in APD, IPMED, IPMAD and hemodialysis respectively in one year horizon. PSA shows consistency on model results. **CONCLUSIONS:** MPS was a dominant alternative having lower costs and more effectiveness than MMF. These results show possibilities to achieve cost-savings and a potential clinical benefit in renal transplants, from the perspective of the Mexican public health system, in specific from IMSS. *IMSS (Mexican Institute of Social Security)

PUK21

A COST-EFFECTIVENESS ANALYSIS OF ONABOTULINUMTOXINA VERSUS BEST SUPPORTIVE CARE (BSC) FOR THE TREATMENT OF ANTICHOLINERGIC TREATMENT-REFRACTORY NEUROGENIC DETRUSOR OVERACTIVITY (NDO)

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OBJECTIVES: Uncontrolled NDO may lead to medical sequelae, such as upper urinary tract complications and renal failure. Treatment choices include BSC (comprised of behavioural therapy and pads, alone or in combination with clean intermittent catheterisation, and possibly with anticholinergics), onabotulinumtoxinA, and surgery. The study's objective was to determine the cost-effectiveness of onabotulinumtoxinA 200 U vs. BSC among patients inadequately managed with anticholinergics in a UK setting. **METHODS:** A Markov model was developed to compare onabotulinumtoxinA + BSC to BSC alone, with surgery as a downstream option. Efficacy and safety inputs were based on Phase 3 trials. Utility values were derived from a UK preference elicitation study. Costs were obtained from various NHS sources. Model uncertainty was examined through deterministic and probabilistic sensitivity analyses. **RESULTS:** The base case incremental cost-effectiveness ratio (ICER) was £3,856, with an incremental cost of £1,692 and incremental benefits of 0.4387 quality-adjusted life-years (QALYs) for onabotulinumtoxinA + BSC compared with BSC alone over 5 years. A lifetime horizon yielded an ICER of £2,739 per QALY. Univariate sensitivity analyses indicated that the main cost drivers are mean monthly use of catheters and treatment administration costs. Probabilistic sensitivity analysis suggested there would be 100% probability of the ICER being ≤ £10,000. **CONCLUSIONS:** Our analysis suggests that onabotulinumtoxinA + BSC is a cost-effective treatment option, compared with BSC alone for patients with NDO who are inadequately managed with anticholinergics in the UK.

PUK22

COST-EFFECTIVENESS COMPARISON OF BOTULINUM TOXIN TYPE A PLUS BEST SUPPORTIVE CARE VERSUS BEST SUPPORTIVE CARE ALONE IN THE TREATMENT OF IDIOPATHIC OVERACTIVE BLADDER WITH URINARY INCONTINENCE AMONG PATIENTS NOT ADEQUATELY MANAGED BY ANTICHOLINERGIC THERAPY IN FRANCE

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OBJECTIVES: To assess the cost-effectiveness of botulinum toxin type A (BTXA; BOTOX®) 100 U in the treatment of idiopathic overactive bladder (OAB) with urinary incontinence (UI) among patients inadequately managed by anticholinergic therapy in France. **METHODS:** A 10 year Markov model divided into 3-month cycles was developed to predict the long-term costs and health outcomes of BTXA + best supportive care (BSC; comprising behavioural therapy, incontinence pads, continued anticholinergic therapy for some patients and, occasionally, catheters) versus BSC alone from a societal perspective (excluding productivity loss) in France. Health states were determined by daily number of UI episodes. Patients discontinuing BTXA and a proportion of patients receiving BSC alone were eligible to receive downstream sacral nerve stimulation (SNS). Costs and health outcomes were discounted at 4% annually. The modelled cohort comprised patients from two phase 3 clinical trials of BTXA and a long-term extension study. Literature, published guidelines and expert advice informed all other model assumptions. Incontinence Quality of Life (I-QOL) data from the trials were mapped to 5-dimension EuroQol questionnaire (EQ-5D) utility values using a published algorithm. Sensitivity analyses assessed the impact of varying model parameters as well as providing a direct comparison between BTXA + BSC and SNS. **RESULTS:** BTXA + BSC was economically dominant compared with BSC alone in the base case (quality-adjusted life-year [QALY] gain: +0.198; cost difference: -€1937). BTXA + BSC was also economically dominant when compared directly with SNS (QALY gain: +0.143; cost difference: -€8973). Probabilistic sensitivity analysis indicated that the incremental cost-effectiveness ratio has approximately a 90% likelihood of being below €20 000 per QALY gained. **CONCLUSIONS:** In France, BTXA + BSC is economically dominant over BSC alone for patients with OAB, symptoms of UI and an inadequate response to anticholinergic therapy.

PUK23

EARLY VERSUS LATE KETOANALOGS SUPPLEMENTATION IN PATIENTS WITH CHRONIC KIDNEY DISEASE IN TAIWAN – A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: In Taiwan, chronic kidney disease (CKD) patients with estimated glomerular filtration rate (eGFR) <15 mL/min/1.73m² are suggested to be managed with low-protein diet (LPD) (<0.6 g/kg/day) plus ketoanalog (KA) supplement. Recent clinical findings showed early KA initiation with LPD at eGFR 15–29 mL/min/1.73m² would significantly slow down eGFR decline. We compared cost-effectiveness of KA initiation at eGFR 15–29 mL/min/1.73m² versus eGFR <15 mL/min/1.73m² in CKD patients on

LPD from Taiwan health care payer's perspective. **METHODS:** A Markov was designed to simulate outcomes of two options in a hypothetical cohort of adult CKD patients with eGFR 15–29 mL/min/1.73m²: (1) Initiation of LPD plus KA, and (2) watchful-waiting on LPD and initiation of KA at eGFR <15 mL/min/1.73m². The Markov states included CKD stage 4 and 5, hemodialysis, and death. Total direct medical cost and quality-adjusted life-years (QALYs) gained were calculated over a maximum period of 10 years. Model inputs were derived from literature. Sensitivity analyses evaluated the impact of uncertainty in all model variables. **RESULTS:** In base-case analysis, early KA initiation group (3.926 QALYs and USD548,191) gained higher QALYs and cost less than the watchful-waiting group (3.787 QALYs and USD887,608) (USD1=NTD30). Sensitivity analysis indicated that early KA initiation at eGFR at 17–29 mL/min/1.73m² would be the preferred cost-effective option if reduction of eGFR decline associated with LPD plus KA was 4% or above. When KA was initiated at eGFR 15–17 mL/min/1.73m², it would remain cost-effective if the reduction of eGFR decline associated with LPD plus KA was 13.5% or above. 10,000 Monte Carlo simulations showed early KA initiation group to be less costly with higher QALY gained than watchful-waiting group by USD333,655 (95% CI 332,174–335,137) and 0.160 (95% CI 0.140–0.180) QALYs, respectively. **CONCLUSIONS:** KA Initiation with LPD in CKD patients as early as eGFR 15–29 mL/min/1.73m² seems to be cost-effective in Taiwan.

PUK24

COST- MINIMIZATION ANALYSIS OF THE DIRECT COSTS OF SEVELAMER CARBONATE AND LANTHANUM CARBONATE IN THE TREATMENT OF CKD-ND PATIENTS

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OBJECTIVES: Hyperphosphatemia or elevated phosphorus in the blood is prevalent in patients with chronic kidney disease - mineral and bone disorder (CKD-MBD) and independently and significantly contributes to morbidity and mortality. The objective of this study is to perform cost - minimization analysis of the newly available medicines sevelamer carbonate (SC) and lanthanum carbonate (LC), for the treatment of hyperphosphatemia in CKD patients not on dialysis (CKD-ND) in Bulgaria. **METHODS:** The results of the head-to-head clinical trial conducted by Sprague (2009) demonstrated equivalent efficacy and safety profiles between the two treatment options. To differentiate the cost in high dose and low dose therapeutic regimes was performed a cost-minimization analysis. Based on that was forecasted the expected cost savings for four years period. Discounting rate of 3.5% was applied. The robustness of the Results was tested through sensitivity analysis (SA) using Tornado diagram. **RESULTS:** The estimated treatment cost per patient/per year with SC and LC was 1441,75€ and 1569,50€ respectively at the low dose regimen (4000 mg of SC vs. 2000 mg of LC), while within the high dose regimen (6400 mg of SC vs. 3000mg of LC) it was 2306,80€ and 2354,25€ respectively. Expected cost savings (discounted) for the four years period within the assumed market shares was between 1 348 794€ and 2 696 431€ at the low dose regimen, while at the high dose regimen the estimated cost savings was between 501 593€ and 1 001 532€ respectively. The results of SA (discounted) show that the major cost drivers in the treatment of hyperphosphatemia were the unit costs of SC and LC. **CONCLUSIONS:** The equal efficacy and lower cost of sevelamer carbonate than lanthanum carbonate when used for treatment of hyperphosphatemia in patients with CKD -ND in Bulgaria should make the sevelamer carbonate a preference alternative.

PUK25

A SPANISH COST-EFFECTIVENESS ANALYSIS OF SEVELAMER VERSUS CALCIUM CARBONATE IN NONDIALYSIS-DEPENDENT CHRONIC KIDNEY DISEASE (CKD) PATIENTS

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OBJECTIVES: In a 36-month, open label RCT that involved 213 patients in stage 3–4 nondialysis-dependent CKD (NDD-CKD) (INDEPENDENT study), sevelamer showed lower rates of all-cause mortality and dialysis inception vs. calcium carbonate. The aim of this study was to assess the cost-effectiveness of sevelamer vs. calcium carbonate in NDD-CKD patients with hyperphosphatemia in Spain. **METHODS:** A Spanish National Health System perspective and lifetime horizon was chosen for the analysis. A Markov model was developed considering health states of "alive with NDD-CKD", "alive with dialysis-dependent CKD", and "dead". All-cause mortality, dialysis inception, hospitalization (frequency and length of stay [LOS]), and drug dosage data were taken from the INDEPENDENT study. All-cause mortality and dialysis inception were extrapolated beyond 36 months using Weibull regression analysis. Local costs (euros, 2014) were applied to pharmaceutical, hospitalization and dialysis utilization. Health utility data was taken from the published literature. Costs and effects were discounted at a rate of 3%. **RESULTS:** In the base case analysis sevelamer was associated with increased survival, delay in dialysis inception, fewer hospitalizations, shorter LOS, 2.12 life years gained (LYG) and 1.61 quality-adjusted life years gained (QALYG) vs. calcium carbonate. Increased survival translated into more treatment time and dialysis sessions vs. calcium carbonate, resulting in an incremental cost of 33.687 €. The incremental cost per LYG for sevelamer vs. calcium carbonate was 15.897 € and the incremental costs per QALYG gained was 20.883 €. Sensitivity analysis showed that sevelamer was more effective and less costly (i.e., dominant) vs. calcium carbonate in time horizons < 6 years. **CONCLUSIONS:** The Spanish analysis showed that sevelamer is a cost-effective strategy vs. calcium carbonate for the treatment of hyperphosphatemia in patients with NDD-CKD, with cost-effectiveness ratios well below the accepted thresholds of 30.000–45.000 €/QALY gained.

PUK26

BURDEN ON SECONDARY CARE OF OVERACTIVE BLADDER PATIENTS WHO ARE INADEQUATELY MANAGED WITH ANTICHOLINERGICS IN ENGLAND

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